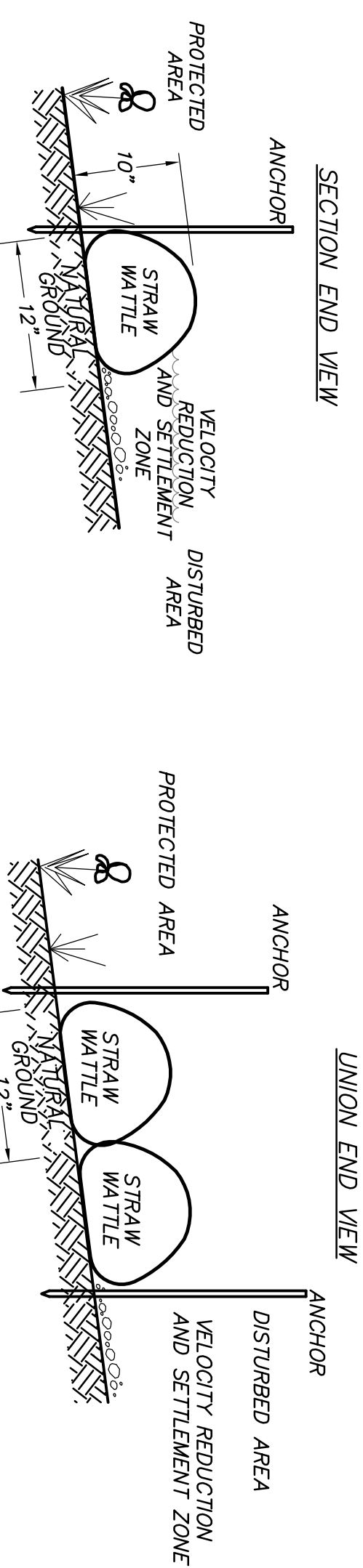## EROSION CONTROL AND SEDIMENTATION NOTES:

1. STRAW WATTLE SILTATION BARRIER. THE SILTATION BARRIER WILL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. AN ADDITIONAL SUPPLY OF STRAW WATTLES SHALL BE ON-SITE TO REPLACE AND OR REPAIR STRAW WATTLES THAT ARE DISTURBED. IN WEEKLY MAINTENANCE OF STRAW WATTLES, THE CONTRACTOR SHALL VERIFY THAT ALL EROSION CONTROL AND STABILIZING MEASURES ARE STILL IN PLACE AND INTACT. ANY BREAKS IN STRAW WATTLES WILL BE CORRECTED IMMEDIATELY.

2. CATCH BASIN INLET PROTECTION. A SILT SACK SHALL BE PLACED IN CATCH BASINS DOWNSTREAM OF ALL NEW CONSTRUCTION ACTIVITIES (SEE DETAIL). THESE WILL REQUIRE A MINIMUM OF WEEKLY MAINTENANCE AND REPLACEMENT IF NECESSARY.

3. THE SURFACE OF ALL DISTURBED AREAS SHALL BE STABILIZED DURING AND AFTER CONSTRUCTION. TEMPORARY MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT EROSION AND SILTATION. TEMPORARY EROSION CONTROL MEASURES SHALL CONFORM WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" DATED MARCH 1997 AND SHALL BE APPROVED BY THE ENGINEER. ALL DISTURBED SLOPES WILL BE STABILIZED WITH A MEASURE APPROPRIATE FOR THIS PROJECT. SOME OR ALL OF THE FOLLOWING MEASURES WILL BE UTILIZED ON THIS PROJECT:
   a. TEMPORARY SEEDING
   b. TEMPORARY MULCHING
   c. PERMANENT SEEDING
   d. PLACEMENT OF SOD
   e. HYDROSEEDING
   f. PLACEMENT OF HAY (WINTER MONTHS)
   g. PLACEMENT OF JUTE NETTING

4. DUST CONTROL. IF DUST IS GENERATED DURING CONSTRUCTION, THEN THE USE OF WATER SPRINKLING WILL BE IMPLEMENTED.

5. DEBRIS & LITTER REMOVAL. ALL DEBRIS & LITTER SHALL BE REMOVED WHEN NECESSARY.

6. CONSTRUCT "TEMPORARY CONSTRUCTION ENTRANCE" AS SHOWN ON DETAIL PLAN PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES. ALL CONSTRUCTION VEHICLES SHALL EXIT THE SITE OVER THIS "TEMPORARY CONSTRUCTION ENTRANCE". THE PURPOSE OF THIS IS TO REMOVE SOIL FROM THE TIRES OF CONSTRUCTION VEHICLES. "TEMPORARY CONSTRUCTION ENTRANCE" SHALL CONSIST OF SIX TO TWELVE INCHES OF TWO TO THREE INCH STONE.

7. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING ANY SAND, DIRT, OR DEBRIS WHICH IS TRACKED ONTO LOW STREET FROM THE SITE. ON TO PRIVATE PROPERTY. REMOVE SILT OR DEBRIS THAT ENTERS ANY EXISTING DRAINAGE SYSTEM INCLUDING CATCH BASIN SUMPS, PIPE LINES, MANHOLES, AND DITCHES.

8. IF A DRAINAGE OR RUN-OFF PROBLEM OCCURS DURING CONSTRUCTION, THE APPLICANT SHALL TAKE IMMEDIATE CORRECTIVE MEASURES.

9. ANY SILT OR CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE ACCESS ROAD IMMEDIATELY UPON DISCOVERY. THE ROADWAY SHALL BE SWEPT AS APPROPRIATE FOR DUST CONTROL.

10. AFTER THE VEGETATION IS ESTABLISHED AND THE GRADED SLOPES ARE STABLE, THE CONTRACTOR WILL REMOVE ALL THE TEMPORARY EROSION CONTROL BARRIERS.

11. STUMPS SHALL BE REMOVED FROM THE SITE. NO STUMPS SHALL BE BURIED ON SITE.

12. ALL STOCKPILES SHALL HAVE EROSION CONTROL MEASURES AROUND THE PERIMETER AT ALL TIMES. STOCKPILES SHALL BE LOCATED ONLY WITHIN THE LIMIT OF WORK BOUNDARIES.

13. UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED WITH A 4 TO 6 INCH LAYER OF LOAM AND SEED.

14. AT ALL TIMES DURING AND AFTER CONSTRUCTION, COMPACTION OF SOILS IN DESIGNATED RECHARGE AREAS MUST BE MINIMIZED.

15. AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS ARE TO BE PERMANENTLY LOAMED AND SEEDED OR PERMANENTLY STABILIZED WITH OTHER SUITABLE GROUND COVER APPROVED BY THE ENGINEER.
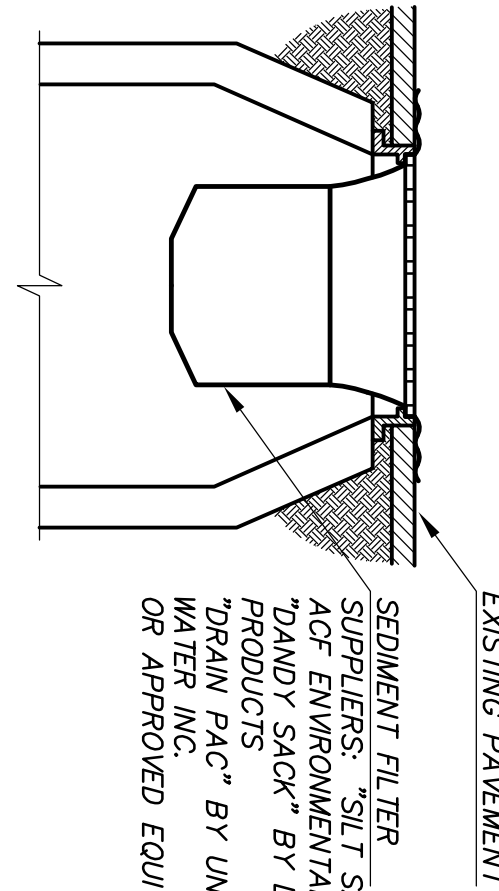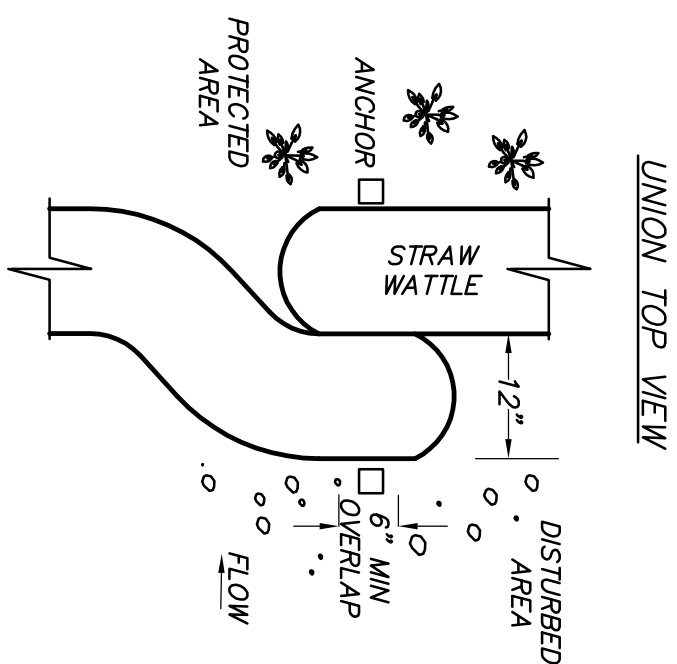
CONSTRUCTION SEQUENCE:

PHASE 1–

1. STAKE OUT LIMIT OF CLEARING, AND INSTALL EROSION CONTROL AS SHOWN ON THE PLANS.

2. REMOVE TREES, CLEAR AND STUMP SITE. STOCKPILE LOAM AND STUMPS AS SHOWN IN THE STOCKPILE AREAS. PROTECT STOCKPILES FROM EROSION AS SHOWN.

3. INSTALL CONSTRUCTION ENTRANCE.

4. GRADE ROADWAY AND SITES FOR HOUSES AS SHOWN ON THE GRADING PLAN.

5. REMOVE STUMPS FROM SITE. STUMPS SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE BURIED ON SITE.

6. INSTALL EROSION CONTROL, CHECK DAMS AND ROUGH GRADE RETENTION POND AS SHOWN ON THE SITE PLAN.

7. INSTALL UTILITIES WITHIN THE ROADWAY AND DRIVEWAYS.

8. PREPARE ROADWAY BASE, COMPACT AND LAY BINDER COURSE OF PAVEMENT.

9. CONSTRUCT DWELLINGS, COMPACT AND LAY BINDER COURSE FOR DRIVEWAYS.

10. CONSTRUCT DWELLING UNIT INFILTRATION UNITS.

11. COMPLETE GRADING OF RETENTION POND, LOAM AND SEED INCLUDING ALL DISTURBED AREAS.

12. LAY FINISH COURSE OF PAVEMENT.

13. UPON FINAL INSPECTION AFTER VEGETATION ON DISTURBED AREAS HAS BEEN ESTABLISHED, REMOVE EROSION CONTROL MEASURES.

CONSTRUCTION ENTRANCE DETAIL

EXISTING PAVED ROADWAY

SEDIMENT BARRIER

PLAN VIEW

50' MIN

SECTION A–A

EXCAVATE MINIMUM 6" INTO EXISTING GRADE

FILTER FABRIC

ORIGINAL GRADE

CRUSHED AGGREGATE GREATER THAN 3" BUT SMALLER THAN 6"

15' MIN OR AS REQUIRED TO ACCOMMODATE TRAFFIC, WHICHEVER IS GREATER

STRAW WATTLE DETAIL
NO SCALE

SECTION END VIEW

PROTECTED AREA

ANCHOR

STRAW WATTLE

NATURAL GROUND

VELOCITY REDUCTION AND SETTLEMENT ZONE

DISTURBED AREA

10"

12"

UNION END VIEW

PROTECTED AREA

ANCHOR

STRAW WATTLE

STRAW WATTLE

NATURAL GROUND

VELOCITY REDUCTION AND SETTLEMENT ZONE

DISTURBED AREA

12"

UNION TOP VIEW

PROTECTED AREA

ANCHOR

STRAW WATTLE
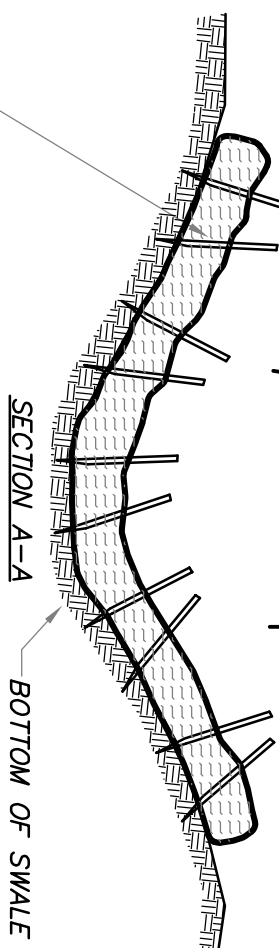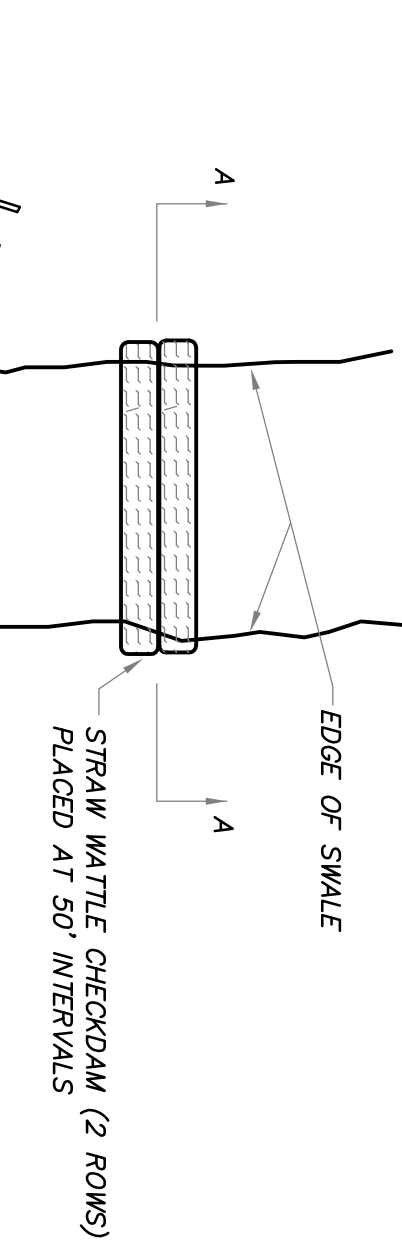
DISTURBED AREA

FLOW

6" MIN OVERLAP

12"

1. WATTLES SHALL BE CONSTRUCTED OF BIODEGRADABLE TUBULAR PLASTIC OR SIMILAR MATERIAL, AND SHALL BE FILLED WITH STRAW OR MULCH.

2. INSTALL WATTLES IN LOCATIONS SHOWN ON THE PLAN.

3. INSTALL THE WATTLES IN LOCATIONS SHOWN ON THE PLAN. IN THE DETAIL.

4. INSTALL ANCHOR STAKES ON DOWNHILL SIDE OF THE WATTLES, AND AT 5' SPACING ALONG THE LENGTH OF THE WATTLE.

5. AT A MINIMUM, ANCHOR STAKES SHALL BE 3/4" SQUARE BY 24" LONG. EXISTING VEGETATION GREATER THAN 2" DIAMETER MAY BE USED AS ANCHORS.

6. INSPECT WATTLES AFTER RAINFALL EVENTS TO ENSURE THEY ARE IN CONTACT WITH THE SOIL AND THOROUGHLY ENTRENCHED, AND REPAIR AS NEEDED.

7. INSPECT DOWNGRADIENT SLOPE AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE SCOUR IS NOT OCCURRING UNDER THE WATTLES, AND REPAIR AS NECESSARY.

SEDIMENT FILTER INLET PROTECTION
NO SCALE

EXISTING PAVEMENT

NOTE:
SEDIMENT FILTER SHALL BE PLACED IN ALL EXISTING CATCH BASINS DOWNSTREAM OF NEW CONSTRUCTION AS SHOWN. THE FILTER WILL REQUIRE WEEKLY MAINTENANCE, OR AS REQUIRED, AND REPLACED IF NECESSARY.

SEDIMENT FILTER SUPPLIERS: "SILT SACK" BY ACF ENVIRONMENTAL. "DANDY SACK" BY DANDY PRODUCTS, "DRAIN PAC" BY UNITED STORM WATER INC. OR APPROVED EQUIVALENT.

STRAW WATTLE CHECKDAM
(NOT TO SCALE)

SECTION A–A

EDGE OF SWALE

BOTTOM OF SWALE

STRAW WATTLE CHECKDAM PLACED AT 50' INTERVALS

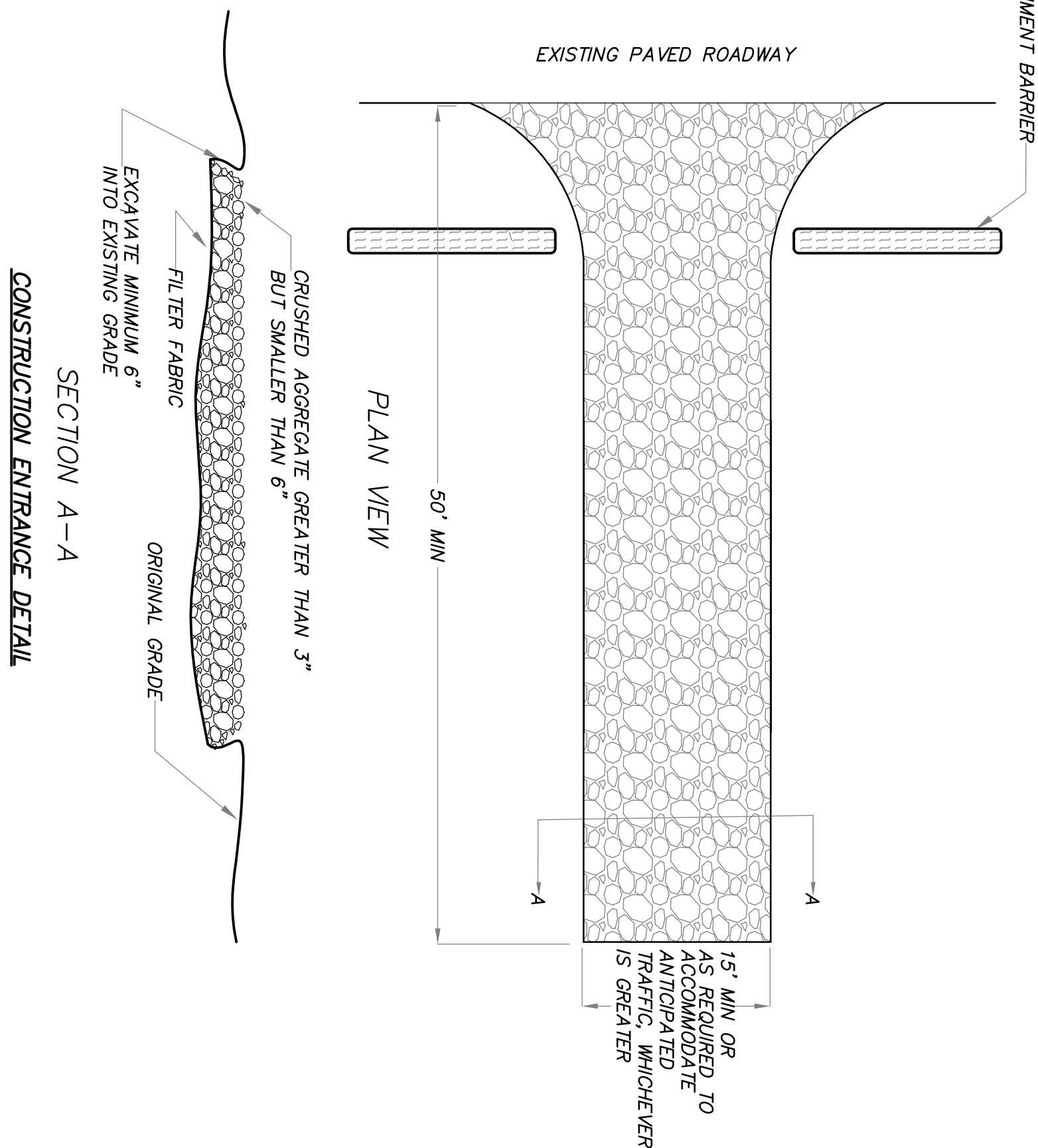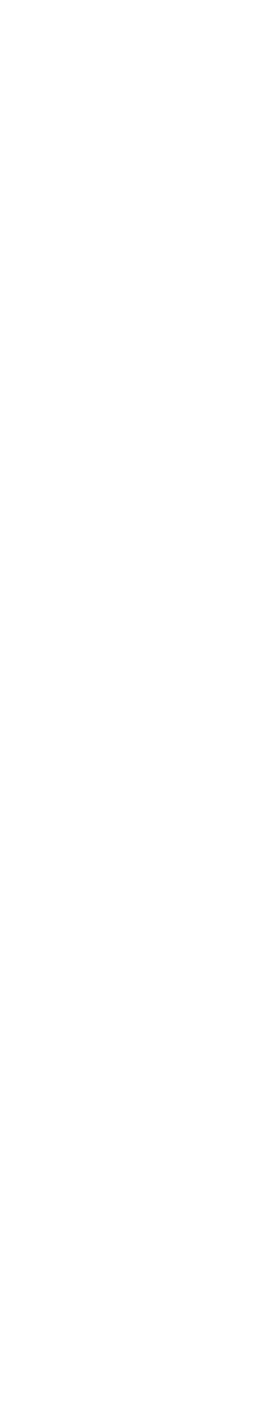WATTLES TO BE SECURED WITH A MINIMUM OF TWO (2) 1" x 1" WOODEN STAKES EVERY 36", DRIVEN 18" MIN, INTO GRADE.

1. WATTLES SHALL BE LAID IN A ROW – PERPENDICULAR TO FLOW PATH.

2. WATTLES SHALL BE SECURELY ANCHORED IN PLACE BY (2) WOODEN STAKES (SEE DETAIL) DRIVEN THROUGH EACH BALE – EVERY 36".

3. INSPECTIONS SHALL BE WEEKLY AND FOLLOWING STORMS, REPAIR AND/OR REPLACE AS REQUIRED.

4. WATTLESS & STAKES SHALL BE REMOVED ONCE A PERMANENT VEGETATIVE GROUND COVER HAS BEEN ESTABLISHED OR WHEN DIRECTED BY THE DESIGN ENGINEER.
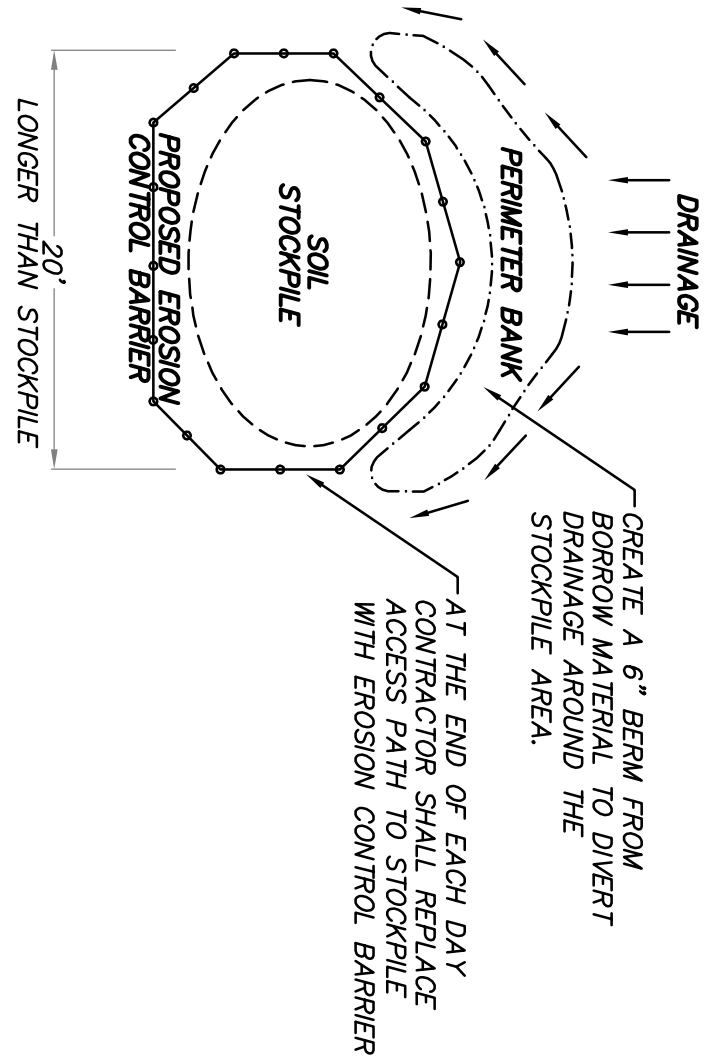

SOIL STOCKPILE DETAIL

DRAINAGE

PROPOSED EROSION CONTROL BARRIER

SOIL STOCKPILE

PERIMETER BANK

20' LONGER THAN STOCKPILE

CREATE A 6" BERM FROM BORROW MATERIAL TO DIVERT DRAINAGE AROUND THE STOCKPILE AREA.

AT THE END OF EACH DAY CONTRACTOR SHALL REPLACE ACCESS PATH TO STOCKPILE WITH EROSION CONTROL BARRIER.

1. SEE SITE PLAN FOR LOCATIONS OF STOCKPILES WITHIN 100' OF A WETLAND OR OTHER JURISDICTIONAL AREA.

2. DO NOT PLACE SOIL STOCKPILE WITHIN 100' OF A WETLAND OR OTHER CONSERVATION JURISDICTIONAL AREA.

3. STOCKPILES SHALL NOT BE LEFT MORE THAN 6 MONTHS WITHOUT VEGETATIVE OR IMPERVIOUS COVER.

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CIVIL ENGINEERING

ES2

JOB# 5092

APPLICANT:

KEENAN & SON, LLP
54 GRISTMILL RD.
LITTLETON, MASSACHUSETTS

TITLE:

EROSION & SEDIMENT CONTROL PLAN 2
456 MASSACHUSETTS AVE
ACTON, MASSACHUSETTS

#	DATE	REVISION COMMENT

APPROVAL UNDER SUBDIVISION CONTROL LAW REQUIRED
ACTON PLANNING BOARD

DATE

DATE: 02/02/15

COMMONWEALTH OF MASSACHUSETTS
IAN R. RUBIN
CIVIL No. 33958
REGISTERED PROFESSIONAL ENGINEER
2-2-15